

POLIOMYELITIS

[INFANTILE PARALYSIS]

These notes were written after discussion with the Consultants of the United Cambridge Hospitals, with the Essex Epidemiological Committee and with the Advisory Committee of County and County Borough Medical Officers of Health of the East Anglian Regional Hospital Board.

CLINICAL. During the poliomyelitis 'season' from July to October and at any time when cases of poliomyelitis are occurring in the neighbourhood, poliomyelitis should be considered as a possible diagnosis in any child or adult with unexplained fever and indeterminate symptoms or with symptoms of meningitis or encephalitis.

The patient should be put to bed in a room by himself and examined at every visit until a diagnosis has been made. In many patients the disease runs a biphasic course. In the first phase which may last for a few hours only there is fever with listlessness, headache, and sometimes vomiting or sore throat without upper respiratory infection. Constipation is rather common and diarrhoea is uncommon in most outbreaks. After a few days of well-being the second phase begins either abruptly or gradually with similar signs and symptoms and in addition there are aches and stiffness indicating involvement of the central nervous system. The diagnosis of poliomyelitis can rarely be made with confidence in the preparalytic stage, except during an epidemic when experience gained by seeing patients in the early stage of illness enables the clinician to distinguish the really suspicious case from the slightly suspicious one. Careful search should be made for any rigidity of neck or spine. The slightest sign of it should arouse suspicion, as should the presence of such 'meningitic' symptoms as pain in the head, spine, chest

or thighs. **Rest in bed from the time of onset of these meningitic symptoms has been shown to diminish the risk of paralysis.**

During poliomyelitis epidemics tonsillectomy and adenoidectomy should whenever possible be postponed because there is a small risk that these operations will be followed by bulbar paralysis.

During epidemics it is wise to avoid gatherings of children who are not in daily contact with one another and also to discourage very strenuous competitive games and sports.

DISPOSAL OF PATIENTS. Where facilities permit, all cases and suspects should be admitted to hospital for investigation. Arrangements should be made with the hospital so that the patient will be dealt with as a suspected case of poliomyelitis. Patients in the early stage of illness should not be sent to an ordinary hospital out-patient session because there is a risk of spreading infection there.

Patients who are nursed at home must be isolated for three weeks from the onset of illness with the usual precautions to prevent spread from droplets and faeces.

ORTHOPAEDIC TREATMENT. Beyond complete bed rest many patients with less severe paralysis do not require specialised splintage or orthopaedic treatment in the first three weeks. Nevertheless it is desirable for even these to be seen by an orthopaedic surgeon as early as possible and with the more severe cases this is essential. During the first three weeks of illness special arrangements should be made with the surgeon to see the patient in order to avoid spreading infection in the out-patient department.

EPIDEMIOLOGY. The results of field and laboratory studies indicate some measures which can be applied in order to prevent the spread of infection. The virus is spread mainly by person to person contact, sometimes by



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cases or by persons with minor illness and often by carriers. Carriers are common among close contacts of cases especially among children. There is no practicable method of detecting carriers. In cases and carriers the virus is present in the throat for a short time and in the faeces for some weeks. The incubation period is usually seven to fourteen days but may be shorter or occasionally as long as thirty-five days. In families it is rare to have more than one paralytic case, but virus studies have shown that most family contacts of a case are infectious at or soon after the time of onset of illness in the case.

PREVENTION OF SPREAD. Household contacts of a case should be advised that for three weeks after exposure they should avoid unnecessary meetings with people outside their home and business circles and that they must be careful to wash their hands after going to the lavatory and before eating or handling food.

No quarantine restrictions are placed on healthy adults unless the Medical Officer of Health decides that there is special risk of spread of infection as there may be with adults whose occupation brings them into close contact with children or involves preparing or handling food which is eaten without further cooking.

School children who are household contacts of a case of poliomyelitis are excluded from school for three weeks from the date of removal or isolation of the patient. These children and any younger children in the household should be kept in 'house and garden quarantine' for the three weeks.

MINOR ILLNESS IN CONTACTS. Any contact of a poliomyelitis patient who has a slight illness should report to a doctor. If there is suspicion of poliomyelitis isolation in bed is advisable for a week from onset or until recovery.

NOTIFICATION. All definite cases must be notified without delay to the Medical Officer of Health concerned so that the possible source of infection can be investigated. It is helpful to these investigations if the 'date of sickening' is recorded on the notification.

The Medical Officer of Health should be informed by telephone about suspected cases.

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